

Serial Number: 10/662,066
In reply to Office Action dated 09-09-05
Page 10 of 15

Amendments to the Drawings

One (1) new sheet of Drawings is attached to include new Figs. 10 and 11.

Serial Number: 10/662,066
In reply to Office Action dated 09-09-05
Page 11 of 15

REMARKS

In the present application, claims 1-29 are pending. Claims 1-42 were in the originally filed application. In a restriction requirement, claims 13-15 and 30-42 were considered withdrawn. Applicant disputes the withdrawal of claims 13-15, but agrees to the withdrawal of claims 30-42.

The drawings were objected to as allegedly not including details recited in claims 5, 21 and 22. In the present filing, new drawing Figs. 10 and 11 have been submitted, along with appropriate modifications to the specification. These drawings illustrate embodiments wherein the flexible spray tip (20) is molded into the nozzle body (Fig. 10), and wherein the flexible spray tip (2) is welded to the nozzle body (Fig. 11). The above amendments to the specification are included to describe those previously disclosed embodiments. No new matter is being submitted with these additions. As a result of these additional figures, the Examiner's objections to the drawings are believed to be irrelevant.

With regard to the Restriction Requirement outlined above, and the withdrawn claims, Applicant submits that claims 13-15 should not have been withdrawn from consideration. While an election to a specific species was required, generic claims remain pending. These three claims provide variations on the generic described element. As such, specific consideration is warranted. As further outlined below, Applicant submits that allowable generic claims do exist, and requests that claims 13-15 be reinstated as non-withdrawn claims.

Claims 23-39 were rejected under 35 U.S.C. § 112 as allegedly failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner has asserted that "claim 23 recites a "first means for shaping ...," a "second means for directly ...," and a "third means for adjusting ...", and that these elements are not specifically described in the specification. Specifically, the Examiner asserts "Yet, the specification provides no guidance as to the scope of each means-plus-function recitation." As such, claims 23-29 were not considered by the Examiner.

In response, Applicant respectfully refers the Examiner to sections of the specification as outlined below. Generally, however, virtually half of the Detailed Description of the Preferred

Serial Number: 10/662,066

In reply to Office Action dated 09-09-05

Page 12 of 15

Embodiments, describes these claimed elements. Thus, the Examiner's position is misplaced and inappropriate. Taking each element separately:

a. Means for Shaping a Stream of Pressurized Fluid

Starting with paragraph [0034] a detailed description exists regarding Applicant's embodiment for a nozzle which provides shaping characteristics. As included in this discussion, the shaping is provided by the configuration of the orifice in the flexible spray tip. This discussion is further contained in paragraph [0035] and with reference to the accompanying figures. From at least this description, the means-plus-function element being claims can easily be determined.

b. Second Means for Directing Pressurized Fluid

Referring now to paragraph [0036] of the Detailed Description, the discussion therein clearly outlines a housing and related structures which maintain an appropriately direct pressurized fluid. The claimed element simply follows the features of these components.

c. Third Means for Adjusting the First Means in Response to Pressurized Fluid

As described numerous places in the application, the feature of the claimed invention which provides additional utility is automatic adjustment of the spray nozzle. In the embodiment shown, this is accomplished by the metering member, and its ability to alter the characteristics of the spray nozzle. More specifically, the spray nozzle includes two leveraging members which allow for changes to the nozzle characteristics by altering the position of the leveraging members. To accomplish this, metering member 60 is utilized. *See, Specification, paragraph [0037]*. Clearly, the metering member 60 (third means) adjusts the spray nozzle (first means) in response to pressures.

Based on the foregoing, Applicant respectfully submits that claims 23-29 should be considered. For these same reasons outlined below, Applicant submits that these claims are in fact allowable and requests their allowance.

Serial Number: 10/662,066
In reply to Office Action dated 09-09-05
Page 13 of 15

Anticipation Rejections are Inappropriate

Claims 1, 3-12 and 16-21 have been rejected under 35 U.S.C. § 102 (b) as being anticipated by Laauwe (U.S. Patent No. 3,990,640) or Zelna (U.S. Patent No. 3,711,020). Applicant asserts that these references do not teach all elements of the claims, thus cannot reasonably form the basis for an anticipation rejection.

Initially, it is noted that claim 2 has not been identified as either rejected or allowable. Applicant respectfully requests clarification related to claim 2.

Prior to discussing the cited references, it is worthwhile to reiterate the nature of the invention being claimed by Applicant. As set forth in the specification, the claimed invention provides diverse control of nozzle operations through its cooperation of components. Fluid flow rate, droplet size and spray pattern are all operational characteristics for any spray nozzle. The claimed invention provides for control of these parameters by the configuration of the various components. This is very different from the cited prior art, which simply provides for constant flow rates with on/off control.

Referring now to Laauwe, it is clear that the device described lacks several elements of the presently pending claims. Generally speaking, the body or spray tip of Laauwe is not flexible, as required by the claims. As set forth in Laauwe, the spray tip 12 is simply the front portion of body 9. The specification specifically states that "the actuator or button 7 ... comprises a substantially rigid plastic body 9". *Laauwe*, col. 4, lines 49-52. Similarly, Laauwe does not disclose any type of "metering member" which affects the spray characteristics of the spray tip. The alleged metering member (rod 16) is simply a sealing member which seats against the orifice 13 in body 9. This configuration causes a starting and stopping of spray, however, does not in any way affect the spraying characteristics. Lastly, the alleged driving assembly (spraying 23) also does not meet the limitations of the pending claims. Consequently, Laauwe cannot reasonably be asserted as anticipating the claimed invention.

Similarly, Zelna lacks sufficient teaching. As can be seen from the specification, Zelna discloses a solder paste gun for evenly delivering solder. While Zelna does include a flexible

Serial Number: 10/662,066

In reply to Office Action dated 09-09-05

Page 14 of 15

nozzle, its dispersion characteristics are not necessarily changed. Rather, the nozzle flexibility of Zelna aids in effective paste cut-off, as opposed to any spray modification. See *Zelna*, col. 4, line 56 – col. 5, line 42. Perhaps more significantly, Zelna lacks any teaching regarding a metering member which modifies or adjusts the spray characteristics of the spray nozzle. The alleged metering member is simply a piston which, in effect, opens and closes the nozzle output. See, *Id.* The alleged driving member of Zelna, is equally inapplicable. This driving member (in reality a spring within the pneumatic piston assembly) does not provide any cooperation or reaction to internal pressures of the fluid to be delivered. Naturally, this is a separate hydraulic system, thus the spring and its related mechanism do react to pressures, however, this is a self-contained pressure, not a pressure of the fluid to be delivered at the output.

Due to the clear lacking of any applicable teaching within Zelna or Laauwe, it is clear that the Examiner's anticipation rejections are inappropriate. Based upon these cited references, the claimed invention is patentable and these claims should be allowed.

Obviousness Rejection Similarly Inapplicable

Claim 22 was rejected under 35 U.S.C. § 103 as being unpatentable over Zelna. Simply stated, the above-referenced difference between Zelna and the claimed invention are equally applicable here. Consequently, this rejection is likewise inappropriate due to the clear differences between Zelna and the claimed invention. As such, Applicant submits that claim 22 is likewise allowable.

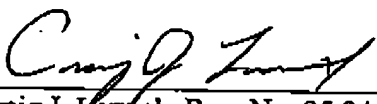
CONCLUSION

In light of the foregoing comments, Applicant submits that all pending claims are allowable. Applicant requests that these claims be passed to issuance.

Serial Number: 10/662,066
In reply to Office Action dated 09-09-05
Page 15 of 15

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at 612-607-7387. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees including fees for any extension of time, to Deposit Account No. 50-1901 (Reference No. 13996-357).

Respectfully submitted,

By: 
Craig J. Lervick, Reg. No. 35,244
Customer No. 34205

Oppenheimer, Wolff & Donnelly
45 South Seventh Street, Suite 3300
Minneapolis, MN 55402
Telephone: 612-607-7387
Facsimile: 612-607-7100
Email: CLervick@Oppenheimer.com